



APPLIED PHYSICS LABORATORY
JOHNS HOPKINS ROAD
LAUREL, MARYLAND 20707

August 10, 1987

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Agenda for the August 12th Nominating Committee Meeting
(L-4 noon)

1. Proposed Slate
 - a. Officers - President, Vice President, Treasurer, Secretary, Editor
 - b. Steering Committee
2. Meeting Topics

Editor's Notes

I hope the heat hasn't melted either you or your computers. Summer will be over in a few weeks (Alex can't wait) and we will be beginning our sixth year. Looking back, few people believed ATARI would last let alone our users group. But both are still growing.

I had hoped that this (and future) issues would be written on a MEGA ST, but they are not

available yet (at least not in this area). So it looks like it will be December before I get my new machine. I decided that I would not get any new "toys" while I am teaching.

The next regular meeting will be September 9th. The meeting this Wednesday (the 12th) is a business meeting to produce a Proposed Slate of Officers and discuss meeting topics. Everyone is invited and encouraged to attend.

I would like to thank Stuart

Bonwit, Hubert Bouver, Tom Criss and Jim Meritt for providing inputs to this newsletter.

If you find yourself in Michigan during the last week in August, you might want to attend the ATARI Magic Show in Southfield, Michigan (August 28th, 29th and 30th). See the last page of this newsletter.

DBASIC for the ST
by DTACK

by Lynna Spornick

Last June I received the following letter:

June 16, 1987

Dear ATARI User Group Folk,

We have developed a very fast interactive BASIC for the ATARI ST computer, called DBASIC. You are not going to believe this, but we want everybody who has an ST to be able to use this BASIC without paying us a dime! (Explanation follows.)

We think the only good BASIC is one that everybody uses. We want DBASIC to be a good BASIC ... so it is not enough that it's fast and interactive (it is). Everybody has to use it!

So we are giving away a lot of absolutely free copyrighted DBASIC disk labels - the first printing was over 65,000 copies! We will soon have more of these labels in print than ATARI has sold ST's (in the U.S.). Which means that everybody can legally copy the DBASIC system disk as soon as we distribute those labels.

Distribute? Oh, yes.

We are giving away, free, 63 of these labels, plus a master disk or two, plus - get this - ten DBASIC manuals to each of 400 ATARI user groups in the U.S. You are one of those groups! These materials are completely free (honest)!

But we have just learned, via a mailing to 132 ATARI user groups which did not appear to have a valid UPS shipping address, that a lot of those groups either don't exist any more or have moved without updating their Compuserve listing. So we are only going to send our DBASIC Care Package to those user groups who are interested enough to invest a few minutes and 22 cents to confirm their (UPS shipping) address and their interest.

Enclosed is a benchmark comparison of interactive DBASIC to other currently available interactive BASICs, compiled BASICs, compiled Cs for the ST. [see the end of this newsletter, ed.] We hope this will interest you enough so you will send your valid UPS shipping address (no P.O. box numbers) to:

DTACK Grounded Inc.
1570 Pacheco B-7
Santa Fe, NM 87501

Sincerely
Hal W. Hardenbergh
Chief Marketing Idiot

P.S.: We have just finished shipping 1,660 free manuals to the old DTACK Grounded newsletter mailing list - we ain't kidding!

P.P.S.: Us dummies at DTACK Grounded (unlike certain of our competitors) aren't smart enough

to copy-protect the DBASIC system disks. But you knew that; nobody prints up 65,000 legally copyright disk labels and then gives them away if the disk is copy-protected, hmmm?

P.P.P.S: By selling DBASIC manual to (some of) the 193,000 U.S. ST owners who won't get a free manual, that's how! [we intend to make money.]

So I wrote them that we are "alive and well and would appreciate" their sending us the above mentioned items. They did and I have distributed copies to pockets of ST users. There is also a copy of the manual and system disk in the group library in 1W-153. By the way, DTACK has already sent us an update which I will put in the library.

Tom Criss has tried it and reported back that it is very fast but that it does not use GEM. It would be nice if some C users do some benchmark tests.

DTACK sells its manual for \$42.95.

Terminal Emulators for
the 8 bit Computers -
downloaded by Jim Meritt

From Nick DiMasi, AT&T Bell Laboratories, Naperville, Ill.

There are a few good terminal emulators for the 8 bit.

Chameleon-emulates a VT52, ADM3A, and others (\$19.95, ANTIC Catalog) [Ed. Notes - I have been using it for years.]
Kermit-emulates a VT52 (free)
VT10SQ-emulates a VT100 (free)

There is another VT100 emulator available to the 8-bit ATARIs.

It is called OmniCom and runs on an 8 bit with the 80 column OMNIVIEW chip installed. I have never used VT10SQ, so I can't speak from personal experience, but I understand that OmniCom is an improvement over VT10SQ. Besides VT100 emulator (in 80 cols. of course), it also offers Kermit and Xmodem, and the latest version has ASCII capture and a print screen feature. I am quite pleased with it (I don't even have the latest version yet!). I have used the Kermit + VT52 emulator, and the old Chameleon and was more than ready for the 80 column.

From John Sangster, Berkeley.Edu

There are several VT100 emulation options. I'm running CDY Consulting's "OmniCom" program, which requires CDY's OMNIVIEW chip O/S replacement. This is commercial, and the combination costs around \$50. On the other hand for the \$50 you also get an 80 column word processor and a general purpose 80 column editor device which you can use in your own programming. On the 800, I think CDY nowadays throws in a board containing the "OMNIMON" resident debugger program, which formerly sold for more than \$50 by itself -- but contact CDY for details. Anyway, OmniCom does a very complete VT100 emulation compared to the others for the 8 bit ATARI and has the following features, many of which are missing from other emulators:

- . supports Kermit, Xmodem, and ASCII send from file / capture to file (or to printer)

- . has online "Print Screen" function for capturing short messages, e-mail addresses or other data on screen right to

the printer

. allows you to list directory contents when preparing to send or receive a file -- you can check name of file to send or verify it's on the disk you thought or make sure the name is not already present when receiving.

I find OmniCom a real delight to use after running a couple of other terminal emulators without these features.

Then there is the ancient but honorable VT10SQ VT100 emulator. It doesn't support file transfer (at least the version I had did not) and also doesn't interpret any graphics (line drawing) commands. OmniCom does a lot more. VT10SQ is, however, available as a Public Domain program.

More recently (in fact even as we speak) John Dunning has put together and is currently enhancing a Public Domain port of Kermit 65 from the Commodore world to the ATARI. It has several terminal emulation modes, one of which is a VT100 in software, similar to VT10SQ but, like OmniCom, with a prettier front on the screen. It also has a 40 column mode and an 80 column mode in 40 column format with scrolling to show you the whole screen.

Any of the VT100 emulators that puts 80 columns on the screen must be used with a monochrome TV set or monitor, or one of the color monitors that have a separate chroma input (e.g. the Commodore color monitors).

What's New in the Library (1W-153)

by Hubert Bouver

The following material has been placed in the group's library during July:

ANALOG and diskette - June'87
Compute! ST and disk - Aug'87
ANTIC and diskette - August'87
ST-LOG and disk - June'87
Compute! Aug'87
Home Computing Journal - vol 3
ST Applications and disk -
July'87
Current Notes July/August'87

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WORLD OF ATARI FAIRE
SANTA CLARA SHOW DEBUTS -
"FINALIZED" ATARI LASER
PRINTER - NEAR-BETA
WORD PERFECT...& MORE

BY NAT FRIEDLAND,
ANTIC EDITOR, 6/21/87

With all the other Atari Fairs that took place during the past 12 months and the huge Consumer Electronics Show just three weeks ago, it was surprising to find so much new to see last weekend during the hastily - organized World of Atari Faire at the year-old Santa Clara Convention Center.

But several unfamiliar companies with impressive ST software made their Atari Fair debuts last weekend. And a near-production version of the Atari SLMB04 laser printer had its first public showing. This report concentrates on products that have not been reported on

previously.

The Atari laser printer is smaller and lighter than most current models, but seems just about as fast and sharp. It was operating in Diablo 630 emulation with a 4MB Mega ST running a pre-release version of the Microsoft Write word processor with a WYSIWYG display. The laser controller board is in a modem-sized box cabled between the ST's high-speed Direct Memory Access (DMA) port and the printer. This controller box also has a second DMA port for connecting a hard disk.

This 300 dots-per-inch printer supports Atari's GDOS (which automatically uses the highest resolution available to a printing device). We picked up a selection of the sharp graphics and multi-font printouts that the Atari SLM804 kept churning out throughout the day. Late summer or September is the current estimated market arrival for the Atari Desktop Publishing System.

At a neighboring booth, Word Perfect was showing a near-beta version of the forthcoming ST edition of its bestselling word processor. The GEM-based software, due in September, looked extremely fast and powerful. It will list at \$395 but is often discounted by more than 50% in the IBM version. The WP rep said that the company is working closely with Publishing Partner's developers to assure immediate desktop publishing compatibility for the word processor.

Programmers will love Omniware's new Edit/Booster, an ST text editor that also

generates GEM code by mouse. Select "Draw A Circle" from a drop-down menu and the GEM code appears in your program. The version currently on sale just works with C, but updates for GFA BASIC, Personal Pascal and Modula-2 are promised soon. Omniware, based in Bellevue, Washington also showed a desk accessory controller for the widely used Hewlett-Packard Laserjet printer and an H-P terminal emulator.

Iliad Software of Orem, Utah, another new entry, showed a powerful, user - friendly CAD / drawing program, Athena II, selling for \$99.95. Athena requires a 1MB ST, but functions in either color or monochrome. Coming soon is a circuit-testing simulation program called Circuit Maker. The company was also showing a multiuser, multitasking operating system, PDOS, which is similar to the system used on 68000-based VME workstations.

A wide-ranging product line of specialized business applications for the ST was shown by Hi-Tech Advisors of Winter Haven, Florida. Their \$199 titles included Church Manager, Service Station Manager, Video Store Manager, Inventory Pro and Sales Pro Plus. Mail Pro handles custom mailing lists and form letters for just \$69. SBT of Sausalito, California kicked off a line of dBASE III business accounting modules based on the ST's dBMAN clone.

Beckemeyer Development Tools of Oakland, California showed their latest addition, a touch-screen restaurant menu system. The demonstration model for a Chinese restaurant was

almost frighteningly complete and efficient.

Two image scanners were shown at the fair. Navarone, of Sonora, California had a \$1,239 ST system including the Canon IX-12 scanner. The simpler \$99.95 IMG Scan from Seymour-Radix of Irving, TX used a small box that tapes to the print head of any dot matrix printer that supports graphics.

Old-timer Lou Schwing of Astra Systems was gleefully demonstrating the ruggedness of his HD+ unit which combines an 20Mb hard disk and a double-sided ST 3.5" disk. The HD+ was notably cool and even kept operating as he waved it in the air and laid it on its side. DeskCart, a \$99.95 cartridge from Quantum Micro of Liverpool, New York is a real-time clock/calendar with a full set of Sidekick-type desk accessories including a filer, calculator, address book, notebook, macros, RAMdisk driver and other utilities. The cartridge format is claimed to save memory and operate faster.

The World of Atari was busy and profitable for most exhibitors throughout its Friday - Saturday run. The thriving Antic booth was showing upcoming ST graphics software from The Catalog -- Cyber Paint, a paint program that creates images for animation with Cybermate, and Spectrum 512, a smooth-lined, ultra-clear paint program that can display all the ST's 512 colors simultaneously.

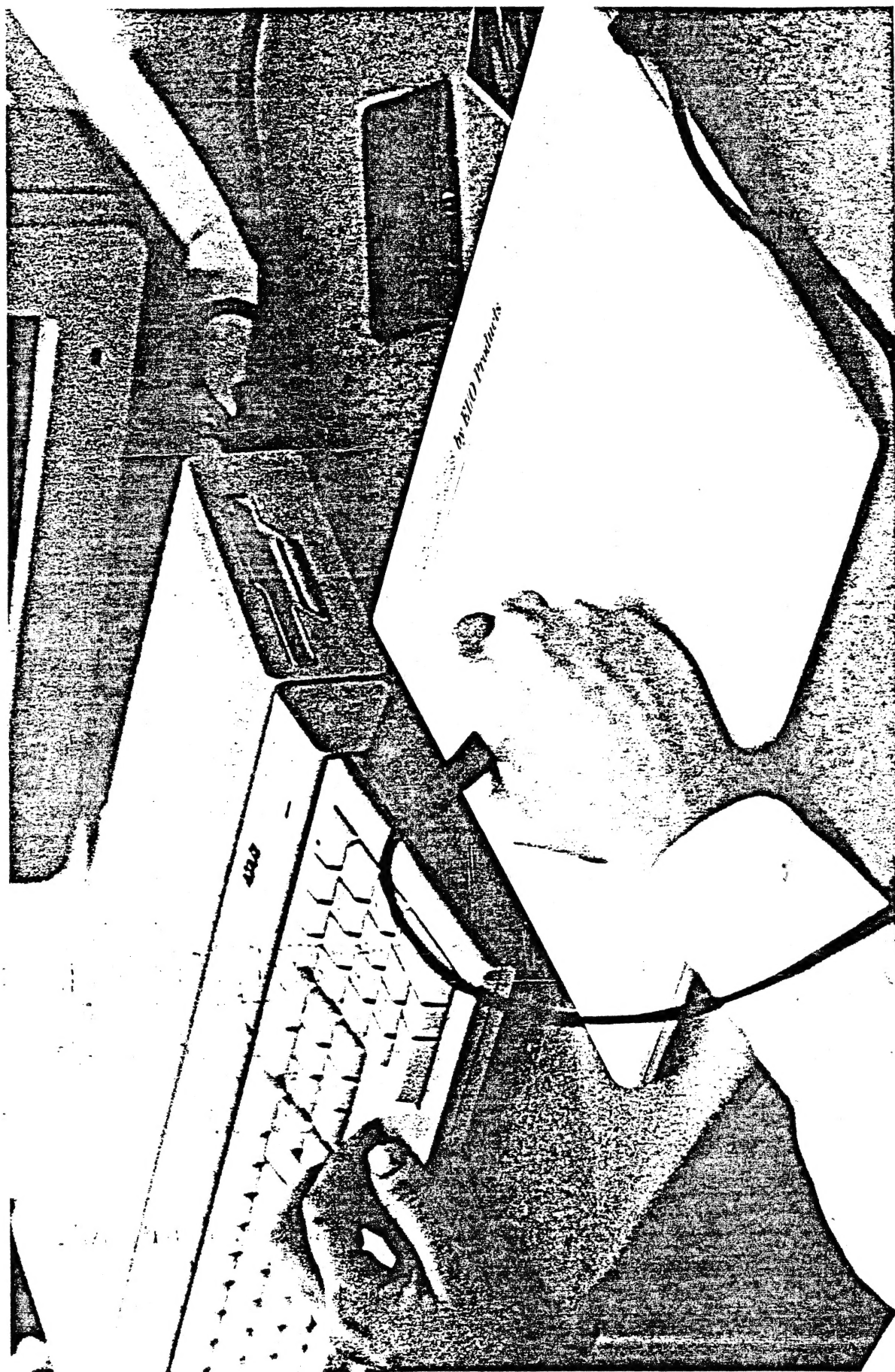
PRODUCT NEWS

by Stuart Bonwit

The Monitor Box of JNL will be shipped to dealers the first of September according to a July 31 phone call to Jeremy Berger, CEO of JNL. The Monitor Box converts the RGB (red, green, blue) video from the 1040ST to NTSC (standard TV) composite video and rf. This allows the use of VCRs and standard TVs and monitors. (Note: the 520 ST has this capability built in!)

E I/O Products of Rockville, MD has announced three "ARTablets" for the ATARI STs. These are drawing tablets with an electronic stylus that allows direct access to X, Y coordinates on the monitor. It is similar in principle to the Koala Pad but with much more resolution (greater than the ST in hi-res). The ARTablet makes it possible to trace a drawing sketched on paper. There are three sizes: 6x9", 12x12" and 12x18", priced \$395, \$539 and \$877 respectively. I expect to get the 6x9" to speed up drawing my animation frames.

MichTron has a new animator package called MAKE IT MOVE that supercedes THE ANIMATOR. I learned about this in a letter from them answering a question about THE ANIMATOR. Unfortunately, as they gave no details, I wrote requesting some. I will be describing and demonstrating THE ANIMATOR at the September meeting and hope, at that time, to have more info on MAKE IT MOVE.



Freelancer 6x9"

A TOTALLY UNBIASED BENCHMARK COMPARISON, Part 1: (LDW did it!)

NOTE: These benchmarks were prepared by LDW and published in an (apparently uncopyrighted) ad on page 45 of the May, 1987 ST Applications magazine. We added DBASIC, of course.

BENCHMARKS:

- A) 1M empty FOR/NEXT loops
- B) Integer calculations (see listing B)
- C) Float benchmark (see listing C)
- D) Calc. standard BYTE magazine benchmark (May 85)
- E) Sieve benchmark size 7000; determine first 1651 primes
- F) Screen output 1000 strings of 70 characters (50 x 20 lines)

Speed comparison (all times in seconds)

INTERACTIVE								
	rank	DBASIC	rank	GFA	rank	Fast	rank	NEW ST
A	1	17.6	2	48.1	3	66.0	4	303.0
B	1	50.1	3	527.0	2	526.0	4	1100.0
C	2*	10.0	3	10.2	1	6.0	4	15.5
D	1*	3.56	2	6.0	3	7.2	4	16.3
E	1	0.87	2	14.0	3	16.0	4	38.27
F	1	9.66	2	23.3	4	256.0	3	226.63

	INTERACTIVE		COMPILED							
	rank	DBASIC	rank	GFA	rank	LDW	rank	Philon	rank	SoftWorks
A	4	17.6	3	17.1	1	6.7	2	12.2	5	379.0
B	2	50.1	4	168.2	1	4.3	3	111.0	5	2542.0
C	3*	10.0	2	8.7	1	3.5	4	30.2	5	150.0
D	3*	3.56	2	3.5	1	2.8	4	8.2	5	22.0
E	1	0.87	2	1.3	4	1.8	3	1.5	5	33.6
F	1	9.66	3	21.9	2	13.9	4	58.2	5	62.1

	INTERACTIVE		COMPILED C's.			
	<u>rank</u>	<u>DBASIC</u>	<u>rank</u>	<u>Megamax</u>	<u>rank</u>	<u>Mark Williams</u>
A	3	17.6	1	5.7	2	6.7
B	3	50.1	1	6.1	2	6.3
C	1*	10.0	3	58.8	2	37.2
D	1*	3.56	3	11.9	2	10.4
E	3	0.87	1	0.46	2	0.48
F	1	9.66	3	63.0	2	42.7

* DBASIC uses a double precision floating point format while the other BASICS use a single precision floating point format, except for GFA, which uses 1 1/2 (6 byte) precision.

Listing B

```
10 FOR J%=1 TO 10
20 FOR I%=1 TO 30000
30 Z%=2/5+3*2+I%
40 Z%=2*3*5
50 Z%=2+3+4+5
60 Z%=Z%+Z%
70 NEXT I%:NEXT J%
```

Listing C

```
10 X=1
20 FOR I%=1 TO 1000
30 A=SQR(X):A=LOG(X)
40 A=LOG10(X):A=EXP(X)
50 A=SIN(X):A=COS(X)
60 A=TAN(X):A=ATN(X)
70 NEXT I%
```


A TOTALLY UNBIASED BENCHMARK COMPARISON, Part 2: (I did it!)

NOTE: The following comparison of interactive DBASIC to compiled C is completely unbiased. I know; I wrote it, just as I wrote much of the DBASIC code.

Only a cynic would suspect that I might be biased.

The secret to winning at benchmarking is to make sure that the things your program is good at are, um, well-represented. For instance, the LDW BASIC compiler is very good at integer arithmetic, so three of the six benchmarks LDW used in their ad feature integers (A, B, and E). I can make DBASIC beat any ST C compiler 99 out of 100 tries; I can also make a good ST compiler beat DBASIC 99 out of 100 tries. If you wanta win you gotta choose your benchmarks good. Here, I am going to use a different approach, and examine *categories of performance*.

1) **PORTABILITY:** No contest. C wins hands down because C was *designed* for portability. After you finish writing your ST checkbook balancing program in C, you can easily port it to the Sinclair ZX-81, the IBM PC, the Tandy Color Computer, and the Cray 1. DBASIC, on the other hand, was *specifically written to run as fast as possible on the 68000 microprocessor* and hence is deliberately, as a fundamental design decision, not portable.

2) **INTEGER ARITHMETIC:** No contest. C wins again because it is a compiled language, capable of global optimization. Also C does not check for integer arithmetic overflows, which saves time (DBASIC does check). As a result, a good compiled C is nearly twice as fast DBASIC on the BYTE Sieve benchmark, which is a good all-around test of integer performance.

3) **FLOATING POINT ARITHMETIC:** No contest. DBASIC wipes out both the good ST compiled Cs in floating point. DBASIC wins both the speed contest and the accuracy contest. That's partly because the C language *requires, as part of the language specification*, that single precision arithmetic *be performed in double precision*. It is also partly because DBASIC has a six-year-old, and hence very mature, floating point math package.

4) **STRINGS:** This is a tough one. Computer experts agree that BASIC, in general, has much better built-in string-handling facilities than C. DBASIC, which emulates the industry-standard Bellevue strings, wins on convenience. On elapsed time? We've never seen a reasonably standard string benchmark. C might win, but the programmer would have to make a heroic effort because C simply does not have good built-in string capability. We're going to award this one to DBASIC.

5) **DISK THROUGHPUT:** No contest. DBASIC wins. All the ST compiled Cs use TOS because C is about *compatibility*. DBASIC is about *speed on the 68000 and ST*, and so uses a DOS which is nearly twice as fast as TOS.

6) **INTERACTIVITY:** No contest. DBASIC obviously wins because it is interactive; the ST compiled Cs obviously lose because they are not interactive. What could be simpler?

7) **MATCHING ASSEMBLERS:** Tie. Both DBASIC and the ST Cs include 68000 assemblers. (Ours is faster because it is written in assembly, but it's almost undocumented right now.)

8) **SCREEN OUTPUT:** We're including this for the same reason LDW did: we beat everything in sight! (LDW did not know about DBASIC.) But Megamax must have an awful lot of lead ballast in its screen output code; it is over six times slower than DBASIC. The Unicorn is over four times slower. Well, I told you that if you want to win, you have to choose the right benchmarks!

9) **THE BOTTOM LINE:** Obviously, the language you choose depends on how much time you want to spend learning it and what you want to do with it. I can't tell you whether DBASIC or a compiled C is better for you because I don't know what your needs are. I will say that, as interactive BASICs go, *DBASIC goes damn fast!*

The Atari Magic Show
August 28,29,30, 1987
28111 Imperial Dr., Warren, MI 48098
313-751-8291

July 1, 1987
Atari-Magic Show
28111 Imperial Dr.
Warren, MI. 48093

Dear Fellow Atarians:

The Michigan Atari General Information Conferance (MAGIC) and Atari Corporation will host a computer show at the Southfield Hilton Hotel from Friday, August 28, through Sunday, August 30.

We would very much appreciate it if you would pass the word on to all of your members, through your newsletters, and bulletin boards, about our show. Atari shows held in the past have had some difficulty in getting the word out to everyone, and many users did not find out about it untill it was all over.

Enclosed, you will find several Atari-Magic posters. Please pass them out to your members, and if possible, post them at your local computer stores. If you need more, please contact me.

Also, at the request of several area user groups, we have set aside a limited number of booths for your use. These booths will be given out on a first-come basis, so if you plan to have your group attend our show, please contact me as soon as possible to reserve your booth. At this time, we plan to charge only the cost of the booth to us (\$35).

We are also looking into hosting a round-table forum, to discuss problems user groups are having and to swap ideas. Sandi Austin, Atari Usergroup Coordinator, will be invited. If any of your officers would like to attend, please notify me as soon as possible.

In exchange for your assistance in getting the word out, we are offering user groups discounted tickets on a pre-sale basis. Prices are \$4 for a one-day ticket (regularly \$5), and \$8 for a 3-day pass (regularly \$10). Tickets must be ordered by August 1 from the above address. All seminars, exhibits, and the MIDI concert are included in the price of admission.

We are putting together an out-of-town tourist kit that will include maps, hotel information, and tourist spots and attractions, in the Detroit Area. If any of your members would like a kit, please contact me. We have worked out a deal with the Southfield Hilton for discounted rooms for visitors to the show. If you plan to stay overnight, we strongly recommend you stay here, since it is extremely convenient to the show (right downstairs!). The regular price of these rooms are around \$100, but we will be offering them for \$55-65, depending on the number of occupants. To get these discounted prices, simply inform the hotel reservation desk that you are coming to the Atari-Magic show. The hotel has a swimming pool and tennis court for it's guests. Call (313)557-4800 to reserve your room.

Finally, because this show is still being put together, it's hard for me to give you all of the details. But here is what your members can expect at our show. Hybrid Arts will be hosting a MIDI-MAZE contest. MIDI-MAZE is a new multi-player, multi-computer maze game. We plan to use 16 Atari-ST computers! There will be prizes awarded to the best players. First prize will be a CASIO keyboard, plus software, valued at over \$800!!

Hybrid Arts will also be hosting a fantastic MIDI concert, with several professional musicians demonstrating the musical power of the Atari. These concerts were held at a couple other fairs also and were a great hit! No show times have been set yet, but I will keep you informed.

Because this is being held in late August, you can expect to see many of the new Atari products at the show. At a recent show held in May, Neil Harris stated that many of their new products, such as the Meg-ST, SX1200 modem, Lasar printer, and PC clone computers, will be in full production in June.

Also, many new products shown at the CES show in Chicago in June should also be available for our show.

Over 30 vendors are expected to attend, including Atari Corporation, Astra Systems, Alpha, Disk Publications, Michtron, Hybrid Arts, Electronical Software, Analog, plus several local computer dealers. More vendors are signing up every day!

We have set up a hotline so your members can keep up-to-date on all the news. The number is 313-751-8291.

If you have any questions, or wish to order tickets or reserve a booth, please contact me at 313-736-4544, or call my BBS at 313-736-3920.

Thank you for your assistance,
Jerry Cross

UserGroup Coordinator
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